

IN THE ABSTRACT:

Please add the following Abstract of the Disclosure:

ABSTRACT OF THE DISCLOSURE

The invention relates to a method for producing boreholes with a large aspect ratio, in metallic materials, layered metallic materials and materials comprising at least one ceramic layer, by means of laser radiation, the intensity of the laser beam being adjusted according to the required modification of the borehole radius in relation to the borehole depth. The spatial distribution of the intensity of the laser beam, in relation to the changing bottom of the borehole, is adjusted in such a way that the intensity  $I$  inside the segment  $w_0$  at a distance  $w$  from the laser beam axis falls off monotonously by the value  $\Delta I$ , and values are set for the spatial modification  $\Delta I$  of the intensity  $I$  and for the segment  $w_0$  that are high enough that the borehole radius  $r_B$  is larger than the segment  $w_0$ , which is the radius of the laser beam ( $r_B > w_0$ ).